

January 17, 2003

RECEIVED

JAN 17 2003

FEDERAL COMMUNICATIONS COMMISSION  
OFFICE OF THE SECRETARYMs. Marlene H. Dortch  
Secretary  
Federal Communications Commission  
445 12<sup>th</sup> Street, S.W.  
Washington, D.C. 20554**Re: Ex Parte Presentation in CC Docket Nos. 02-33; 95-20; 98-10**

Dear Ms. Dortch:

On January 16, 2003, Richard Whitt of WorldCom, Inc. and outside counsel Mark Schneider (*Jenner & Block*) met with Lisa Zaina, senior legal advisor to Commissioner Jonathan Adelstein, to discuss the issue of Internet service provider (ISP) access to DSL networks and services. The meeting focused largely on issues covered in previous filings submitted by WorldCom in the above-referenced proceedings, including the many legal infirmities attending the suggested redefinition of DSL services as "telecommunications," and any consequent elimination of the longstanding Computer Inquiry rules. In particular, Mr. Whitt and Mr. Schneider explained that:

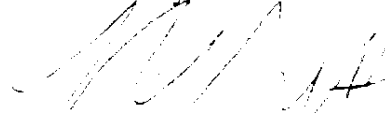
- Intermodal competition for consumer broadband services is a fallacy. For example, based on figures presented by the Bell Operating Companies (BOCs), only one-third of American consumers currently can choose from between the cable and local telephone companies for broadband services. Moreover, as recent press reports show, the satellite companies are retreating from any earlier intention to deploy competing broadband platforms. At best, then, consumers currently face a limited telephone/cable duopoly, which hardly qualifies as robust intermodal competition.
- The BOCs' "level playing field" argument holds no water, for many reasons articulated in WorldCom's previous filings. In addition: (1) the FCC (rightly or wrongly) utilized historical and statutory reasons for not imposing common carriage requirements on the cable companies for the first time; (2) closed access to the cable modem platform makes it all the more critical for the Commission to leave the BOC platform open to competing ISPs; (3) the debacle created by @Home's precipitous service shutdown in 2001 can be directly attributed to consumers' inability to access competing ISPs, which in turn can be traced to the FCC's failure to require cable open access; and (4) allowing the BOCs to serve as the sole DSL-based broadband provider, and sole DSL-based ISP, constitutes a single point of failure that raises serious concerns about critical infrastructure protection and risks to network security.

- The BOCs already are openly flouting the existing Computer Inquiry rules and safeguards. This noncompliance is demonstrated by the fact that the BOCs' affiliated ISPs control between 85 and 90 percent of the DSL-based Internet access market, in stark contrast to their meager 1 to 2 percent share of the narrowband dial-up Internet access market. Elimination of the Computer Inquiry rules will only cement this discriminator) and anticompetitive outcome, to the ultimate detriment of American consumers.
- No "radical surgery" would be required to maintain and enforce the existing Computer Inquiry rules: in fact, the separation between wholesale DSL telecommunications service inputs and retail information services is required currently, and already exists technically in the HOC networks. Moreover, the Computer Inquiry rules themselves constitute an effective deregulatory regime, by limiting necessary regulation only to facilities-based common carriers, and leaving unregulated all information services, applications, and content which utilize the carriers' telecommunications services.
- Aside from general rhetoric about restricting "integration" and "network design," the BOCs continue to provide no actual evidence of any economic costs or technical constraints resulting from application of the Computer Inquiry rules. In contrast, the Information Technology Association of America (ITAA), the BroadNet Alliance, Earthlink, WorldCom, and numerous other organizations and companies have touted the many specific market benefits of those rules, and the very real harm to the public interest should they be removed.

Copies of the attached documents were distributed during the meeting.

Pursuant to Section 1.206(b)(2) of the Commission's Rules, an original and one copy of this letter are being provided for inclusion in the dockets of the above-referenced proceedings.

Sincerely,

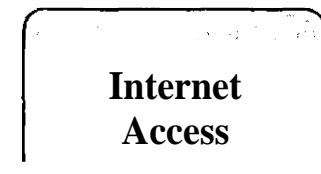
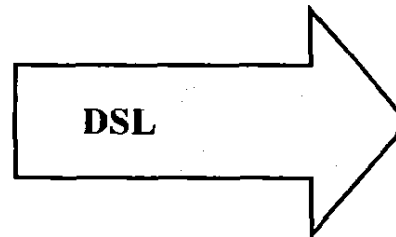
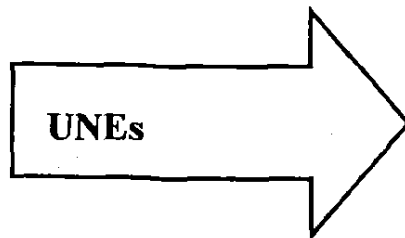


Richard S. Whitt

cc: Lisa Laina

Attachments

## UNEs, DSL and Internet Access



### **What is it:**

- Network piece parts (*e.g.*, loops, transport, etc.) that CLECs use to provide telecom services.

- It is a telecommunications service that can be provided by competitive LECs using a combination of UNEs and their own facilities.

- An information service provided using telecommunications inputs, including network elements and telecommunications services (including DSL), combined with computer processing, information storage and protocol conversion to enable users to access Internet content and services

### **Who gets it:**

- \* Available only to telecommunications providers (not ISPs).

- Offered to **ISPs** as an input to dedicated Internet access and **at retail** to end-users as a private line service (*e.g.*, a DS-I substitute).

- \* Provided to end-user customers

### **Who offers it:**

- Offered only by incumbent LECs.

- \* Offered by telecom carriers including both incumbent LECs and competitive LECs.

- Offered by ISPs, including ISPs affiliated with incumbent LECs.

### **Regulatory treatment:**

- ILECs must provide access to UNEs at cost-based rates when lack of access would impair requesting carrier's ability to provide the telecommunications service it seeks to offer.

- Regulated as a telecommunications service; ILECs are currently considered dominant in the provision of DSL.

- Internet access is not a telecommunications service regulated under Title II

January 7, 2003

**BY HAND DELIVERY**

Ms. Marlene H. Dortch, Secretary  
Federal Communications Commission  
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Re *Ex Parte* Presentation  
CC Docket No. 02-33

Dear Ms. Dortch:

WorldCom, Inc. has been asked to address in more detail the ancillary jurisdiction question posed in the NPRM in the above-referenced proceeding<sup>1</sup> that has received little comment in the otherwise extensive record. That question is whether the Commission would retain the ability to regulate access to bottleneck transmission facilities pursuant to its Title I jurisdiction if it concludes that those facilities are not subject to its Title II jurisdiction when they are being used to provide an "information service." Although WorldCom explained in its opening Comments the substantial difficulties the Commission would face if it attempted to rely on Title I jurisdiction: the proponents of Title I regulation have been notably silent in response. In particular, the ILECs have vigorously urged the Commission to declare it lacks Title II authority and either not to regulate at all,<sup>3</sup> or to regulate minimally (and in unspecified ways) under Title I.<sup>4</sup> But a passing reference by Verizon to one side,<sup>5</sup> they have for the most part refused to answer the question posed by the NPRM: whether the FCC in fact has the *authority* to enact such Title I regulation. No doubt the ILECs are silent on this point because they would be the first to challenge the FCC's jurisdiction if the substance of the Commission's Title I regulation was not to their liking. And while Amazon.com has submitted a legal memo concerning the Commission's Title I jurisdiction to regulate cable modem facilities,<sup>6</sup> that memo only highlights the fact that there is no Title I jurisdiction to regulate wireline carriers.

The difficulty is that Title I confers jurisdiction that "is restricted to that reasonably ancillary to the effective performance of the Commission's various responsibilities." It is not an

<sup>1</sup> See NPRM ¶ 61.

<sup>2</sup> See Opening Comments at 78-83.

<sup>3</sup> See, e.g., Qwest Comments at 31-32; SBC Comments at 28.

<sup>4</sup> See, e.g., SBC Comments at 30; Verizon Comments at 12-13.

<sup>5</sup> See *infra* n.12.

<sup>6</sup> *Ex Parte* letter dated December 2, 2002, Appendix A.

<sup>7</sup> *United States v. Southwestern Cable Co.*, 392 U.S. 157, 178 (1968).

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effective performance” of Commission responsibilities for regulation of interstate communications that must make use of that inside wire.”

In a closely relevant factual situation, an appellate court approved the FCC’s use of ancillary jurisdiction in *Computer II* to impose on AT&T the requirement that it separate its basic transmission services from its enhanced services. *CCIA v. FCC*, 693 F.2d 198, 213 (D.C. Cir. 1982). The Court did so because the separate affiliate requirement was necessary to assure that Title II communications services were offered at reasonable rates. The court found that ancillary jurisdiction was appropriate only because the FCC made detailed factual findings showing “the potentially symbiotic relationship” between the non-Title II enhanced services and the Title II transmission services. 693 F.2d at 213. State laws regulating enhanced services were preempted on the same rationale. *Id.* See also *GTE Service Corp. v. FCC*, 474 F.2d 724, 731 (D.C. Cir. 1973) (regulation of computer services under Title I permitted because computer services “may substantially affect the efficient provision of reasonably priced communications service”).<sup>13</sup>

Reviewing this precedent, the Commission itself has stated that its ancillary jurisdiction may be properly asserted *only* where it has “subject matter jurisdiction over the services and equipment involved, *and* the record demonstrates that implementation of the statute will be thwarted absent use of our ancillary jurisdiction.”<sup>14</sup> Applying this standard, the Commission, for example, exercised its ancillary jurisdiction over voice mail and interactive menus services (which the Commission has categorized as information services) where necessary to effectuate the purposes of sections 255 and 251(a)(2) of the Act concerning the accessibility of telecommunications services to the disabled. By contrast, the Commission declined to assert

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<sup>12</sup> *National Ass’n of Regulatory Util. Comm’rs v. FCC*, 880 F.2d 422, 429 (9th Cir. 1989) (internal quotation marks and citation omitted).

<sup>13</sup> Verizon, the only ILEC proponent of Title I jurisdiction that even acknowledges the Commission’s question about its availability, asserts that the *Computer II* appeal decision directly supports Title I jurisdiction here, since in both cases the Commission would move from a regime in which there was rigorous Title II jurisdiction to a more relaxed Title I jurisdictional framework. Comments at 13. But, as we describe above, in affirming *Computer II*, the court did not rule that it *is* always permissible to replace Title II jurisdiction with Title I jurisdiction. It ruled that Title I jurisdiction was justified in that case only because continuing regulation of Title I enhanced services was needed to assure proper regulation of Title II transmission services. The same showing cannot be made here. See *infra* pp. 5-7.

<sup>14</sup> See *In re Implementation of Sections 255 and 251(a)(2) of the Communications Act of 1934, as Enacted by the Telecommunications Act of 1996*, 16 F.C.C.R. 6417, ¶ 106 (1999) (“Access to Telecommunications Service **Order**”) (emphasis added). See also *id.* ¶ 95 (“Ancillary jurisdiction may be employed, in the Commission’s discretion, where the Commission has subject matter jurisdiction over the communications at issue and the assertion of jurisdiction is reasonably required to perform an express statutory obligation.”).

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independent source of regulatory authority or a general grant of power that gives the Commission freedom to regulate activities over which it is not expressly given jurisdiction.<sup>8</sup>

Any attempt to “regulate the Internet” under Title I thus will surely be opposed in the courts as an unlawful extension of the Commission’s jurisdictional authority. Critics will correctly point out that the FCC has never attempted to use Title I to support affirmative regulation of the type proposed here. Moreover, courts have set aside regulations premised on the Commission’s Title I authority in cases in which the Commission has been unable to prove a close nexus between the communication it wishes to regulate and the promotion or protection of an express Commission authority.

Indeed, while several ILECs assert in passing that the Commission remains free to regulate under Title I if necessary,<sup>9</sup> they are also quick to argue that there is no need for any regulation whatsoever in this area to protect the Commission’s regulation of telecommunications services.’’ But if there is no *need* for Title I regulation to protect the Commission’s affirmative Title II rule-making authority, neither is there any power to regulate under Title I since any ancillary regulatory authority would have to be justified by the need to protect or preserve some explicit regulatory authority. Implicit in Qwest’s statement that there is no need for Title I regulation, then, is its answer to the Commission’s question about its *jurisdiction* to issue such regulation: Qwest’s view must be that the Commission has no such authority, and if it were to try to exercise any such authority, that exercise would not survive judicial scrutiny.

Where the Commission’s Title I authority has been upheld, the courts have been able to identify a direct link between the regulation and a specific statutory responsibility. For example, the courts have upheld the Commission’s assertion of Title I jurisdiction over community antenna television as reasonably ancillary to effective performance of its responsibilities for the regulation of broadcasting.” and jurisdiction over inside wiring as “reasonably ancillary to

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<sup>8</sup> See *California v. FCC*, 905 F.2d 1217, 1240 n.35 (9th Cir. 1989). See also *NARUC II v. FCC*, 533 F.2d 601, 613 & n.77, 617 (D.C. Cir. 1976) (noting that while § 151 of the Communications Act “does set forth worthy aims toward which the Commission should strive, it has not heretofore been read as a general grant of power to take any action necessary and proper to those ends.” and that the “allowance of ‘wide latitude’ . . . in the exercise of delegated powers is not the equivalent of untrammelled freedom to regulate activities over which the statute fails to confer or explicitly denies”) (footnote omitted).

<sup>9</sup> See *supra* n.4.

<sup>10</sup> See, *e.g.*, Qwest Comments at 31-32; SBC Comments at 28

<sup>11</sup> *United States v. Southwestern Cable Co.*, 392 U.S. at 178.

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similar jurisdiction over any other information services, because, in the Commission's judgment, access to these other services (e.g., e-mail and web pages) was not essential to making telecommunications services accessible to the disabled, and, by implication, not essential to implementation of sections 255 and 251(a)(2) of the Act.<sup>15</sup>

When the Commission has been unable to prove that its Title I jurisdiction is essential to the regulation permitted by some other affirmative jurisdictional grant, the courts have struck down the FCC's regulation. For example, in *FCC v. Midwest Video Corp.*, 440 U.S. 689, 708-709 (1979), the Supreme Court affirmed a decision setting aside Commission rules that compelled cable systems to provide common carriage of public originated transmissions, on the grounds that doing so would convert cable broadcasters into common carriers, an authority the Court concluded needed to come from Congress. If the FCC concludes that when ILECs act as ISPs they too are not common carriers, its efforts to impose affirmative common-carrier-type regulation on ISPs would appear to be foreclosed by *Midwest Video*.

Even when the FCC uses Title I negatively to preempt state regulation, its powers are limited, because they still must be ancillary to some affirmative grant of jurisdiction. Thus, in *NARUC II*, 533 F.2d 601, the Court of the Appeals for the District of Columbia Circuit rejected the Commission's claim that its pre-emption of state and local regulations concerning two-way, non-video communications was reasonably ancillary to its jurisdiction over broadcasting services. The Court had "great difficulty finding any . . . broadcast purpose which is served by the Commission's attempted pre-emption," and found that the Commission's "pre-emption [which would not increase the mix of available cable viewing choices] [did] not directly affect transmission in any medium which is of direct concern under the Commission's power over broadcasting."''

Ancillary jurisdiction here would be proper only if the Commission could demonstrate that the regulation of an integrated component of an information service that it has asserted is *not* a telecommunications service is essential to the protection or promotion of the Commission's regulation of telecommunications services under Title II of the Act." The model would be the Commission's Title I regulatory (and deregulatory) treatment of enhanced services and CPE that passed muster in the *Computer II* appeal based on detailed record findings establishing the need for the Title I regulation (or preemption of state regulation) to preserve the Commission's authority over Title II transmission services.<sup>18</sup>

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<sup>15</sup> *Access to Telecommunications Service Order*, ¶ 107.

<sup>16</sup> *Id.* at 615.

<sup>17</sup> *See, e.g., California v. FCC*, 905 F.2d at 1241 n.35 ("In the case of enhanced services, the specific responsibility to which the Commission's Title I authority is ancillary to its Title II authority is over common carrier services.").

<sup>18</sup> *See supra* p. 3.

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Here, however, there is no obvious connection between the need for Title I regulation of ILEC loops when used to provide information services, and the preservation of the Title II common carriage regulation that applies to those loops when used to provide telecommunications services. Indeed, the predicate for the Commission's assertion of Title I authority will be that the Commission would have determined (wrongly, in our view) that Internet access services do not themselves utilize common carrier services, a judgment that carries with it the Commission's understanding that Congress believed that no common carrier regulation of such services was appropriate. If the transmission component of Internet access service really is "private carriage," as the Commission tentatively concludes, no Title II common carriage interests would be protected by an FCC rule imposing affirmative regulation of any kind on these private arrangements.

Nor would this Title I regulation be necessary to the regulation of those same lines when they are used to provide telecommunications services. To the contrary, the Commission has ample *direct* authority to regulate those lines under Title II. Certainly, nothing in the record here supports any claim that the Commission needs to invoke its ancillary jurisdiction to protect interests set out in Title II of the Act. In other words, a FCC ruling the ILECs that provide information services over their own facilities are to that extent not providing common carriage leaves the Commission without any ground to regulate those facilities when used for that purpose.

In this regard, the situation is entirely different from that present when the Commission used its Title I authority to regulate cable services *before* Congress amended the Communications Act to create a specific regulatory regime to cover cable. Here there is no similar gap to fill. To the contrary, in the deliberations that preceded the 1996 Act Congress considered and *rejected* a proposal to subject facilities used to provide broadband services to a separate regulatory regime.<sup>19</sup> Instead, Congress determined that transmission facilities should continue to be treated under Title II, and it imposed new obligations on incumbents' facilities.

Indeed, any attempt to impose Title I common carrier-type obligations on the ILECs different than the common carrier obligations Congress imposed in section 251 correctly will be seen simply as an unlawful attempt to forbear from enforcing section 251(c) and to avoid the

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<sup>19</sup> Specifically, during the legislative deliberations regarding the Telecommunications Act, the President proposed adoption of a new "Title VII" of the Communications Act that would have established a single regulatory regime applicable to all broadband telecommunications services. The Congress declined to adopt this approach. *Telecommunications Reform Legislation Hearing Before the Subcomm. on Telecommunications and Finance, House Comm. on Energy and Commerce*, 103d Cong. (1994) (testimony of Larry Irving, Assistant Secy. for Communication and Information, Dep't of Commerce) (text available at 1994 WL 213538).

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requirements of the 1996 Act.” And any attempt to find “section 201-202 lite” in section 152(a) similarly will be seen as an unlawful attempt to avoid by regulatory fiat long-standing binding precedent concerning common carriage. It will not work.

Other Statutory Basis. In a December 2 *ex parte* filed in the cable unbundling proceeding, but submitted in this docket as well, Amazon.com attaches a legal memorandum that takes the position that the FCC has jurisdiction to issue Title I regulation of cable modem service. Notably, the memorandum does not assert that there is jurisdiction ancillary to any Title II authority. Its principal argument to the contrary is that Title I jurisdiction is ancillary to the Commission’s express authority set out in Title VI of the Act governing cable communications – a statutory basis that obviously does not apply here in the wireline context, and which we do not dispute.

The memo also references two other possible basis for ancillary jurisdiction – section 706 of the Act, 47 U.S.C. § 157 *nt.*, and the statement of policy contained in the Communications Decency Act, 47 U.S.C. § 230(b). However, the Commission would be hard-pressed to rely on either of these statutory basis here.

**As** to section 706, the Commission’s view, endorsed by the court of appeals, is that “section 706(a) does not constitute an independent grant of . . . authority to employ other regulating methods. Rather, we conclude that section 706(a) directs the Commission to use the authority granted in other provisions . . . to encourage the deployment of advanced services.” *Advanced Serv. Order*, FCC 98-188, 13 FCCR 24011, 24044-46 (1998) ¶¶ 69-79. *See ASCENT v. FCC*, 235 F.3d 662, 666 *nn.* 7 (D.C. Cir. 2001) (affirming in relevant respect only). Since it is the Commission’s view that section 706 only “gives this Commission an affirmative obligation to encourage the deployment of advanced services, relying on our authority established elsewhere in the Act.” *id.* ¶ 74, and “does not constitute an independent grant of authority.” *id.* ¶ 77, neither can it be the basis upon which the FCC asserts ancillary jurisdiction, since the FCC obviously may not rely on Title I to issue regulations in support of its regulatory authority under section 706, when it has no such regulatory authority. *Cf. California v. FCC*, 905 F.2d at 1241 *n.* 35 (rejecting FCC’s claim that when Congress denied FCC authority to regulate intrastate services under Title II, the FCC nevertheless had the power to regulate under Title I “based on implied authority derived from those [same] powers. . . . [Congress’ decision not to grant Title II authority] cannot be evaded by the talismanic invocation of the Commission’s Title I authority.”).

The cases cited in the Amazon.com legal memo are not to the contrary. While it is true that the Commission referenced section 706 in the *OTARD Extension Order*, 15 FCC Rcd at 23030, *see* Memo at *ix n.* 36, the FCC had ample authority supporting ancillary jurisdiction there

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<sup>20</sup> *See* 47 U.S.C. § 160 (FCC may not forbear from enforcing section 251 until fully implemented).

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wholly apart from section 706, and section 706 was invoked as a reason to exert that authority to promote deployment of advanced services. *See OTARD Order* ¶ 104 (relying on §§ 201(b), 202(a), and 205(a)). And the memo's citation to the *AOL Time Warner Order*, 16 FCC Rcd at 6569-70, is mystifying, as the Commission there did not rely on its ancillary jurisdiction, or on section 706, as authority to impose a condition on the merger, but relied instead on its broad authority "to ensure that the proposed transaction serves the public interest." *See AOL Time Warner Order* ¶ 59 (citing § 214(a)). *See also id.* ¶ 60 (stating that FCC's "authority to attach conditions to the proposed transfer" derives from § 303(r) and § 214(c), and not mentioning § 706).

Amazon.com's reliance on the Communications Decency Act as a basis for invocation of ancillary jurisdiction is, if anything, even less persuasive. *See* Legal Memo at x-xi. That Act requires ISPs to notify users of parental controls that are designed to block out obscene material, and in the statement of policy that is contained in the Act the Congress stated that promoting blocking and filtering technologies would "promote the continued development of the Internet." 47 U.S.C. § 230(b). It is difficult to understand the claim that the FCC could impose unbundling obligations on the ILECs to aid in the FCC's efforts "to remove disincentives for the development and utilization of blocking and filtering technologies." *Id.* Even if one were to ignore the specific purpose of the Act, its more general command upon which Amazon.com relies states that except to the extent necessary to promote parental controls, regulators should refrain from imposing regulation on the Internet. If anything, this precatory deregulatory command militates *against* the Title I regulatory approach proposed here. It is also difficult to understand Amazon.com's claim that the Communications Decency Act was relied upon to support the FCC's Title I jurisdiction invoked when the FCC adopted rules governing reciprocal compensation for ISP traffic. *see* Legal Memo at xi & n.42, since the FCC's jurisdiction there plainly did not rest on Title I, but on well-established Commission powers under sections 201 and 202 to regulate interstate telephone traffic. The only mention of the Communications Decency Act in that Order came in a footnote describing the so-called "ESP exemption." *See* citation in Legal Memo at xi n.41. But the Commission obviously was not suggesting that the Communications Decency Act was the jurisdictional basis for the ESP exemption, if for no other reason than that the "exemption" predated the Act by decades.

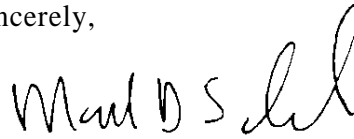
In sum, Amazon.com has made the best case for the Commission's reliance on Title I as a basis for creating a regulatory regime governing facilities-based carriers that provide ISP services over their facilities. But what it has shown is that there is in fact no credible basis for Title I jurisdiction over wireline carriers. If the Commission believes that bottleneck

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facilities need to be subject to regulation. its only defensible choice is to continue to regulate access **to** these facilities under Title 11.

Sincerely,



Mark D. Schneider  
Counsel for WorldCom, Inc.

cc: John Rogovin  
Brent Olson  
Cathy Carpino  
Chns Libertelli  
Lisa Zaina  
Jordan Goldstein  
Dan Gonzales  
Matt Brill  
Robert Pepper  
Robert Cannon  
William Maher  
Linda Kinney  
Kyle Dixon

May 21, 2002

**EX PARTE**

Marlene H. Dortch  
Secretary  
Federal Communications Commission  
445 12<sup>th</sup> Street, S.W.  
Suite TW-A325  
Washington, D.C. 20554


Re: Ex Parte Letter in CC Docket No. 02-33; CC Docket No. 01-338; CC  
Docket No. 01-337; CC Docket No. 98-147; CC Docket No. 98-10;  
CC Docket No. 96-98; CC Docket No. 95-20; CS Docket No. 02-52;  
GN Docket No. 00-185

Dear Ms. Dortch:

On May 20, 2002, Vint Cerf of WorldCom, Inc. delivered the attached letter to Chairman Michael Powell, with copies delivered to Commissioner Michael Copps, Commissioner Kathleen Abernathy, and Commissioner Kevin Martin, and their wireline competition staff.

Pursuant to Section 1.106(b)(1) of the Commission's Rules, two copies of this letter are being provided to you for inclusion in each of the dockets of the above-referenced proceedings

Sincerely,



Richard S. Whitt



Vinton G. Cerf  
Senior Vice President:  
Internet Architecture &  
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May 20.2002

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The Honorable Michael Powell  
Chairman  
Federal Communications Commission  
445 12<sup>th</sup> Street. S.W.  
Washington, D.C. 20553

Dear Chairman Powell:

I have watched with considerable interest as the FCC and Department of Commerce grapple with the daunting policy challenges associated with the deployment of broadband services. Having devoted much of my career to the creation and evolution of the Internet. I thought it might be potentially useful to you and Secretary Evans if I outlined my personal vision for the future of high-speed Internet access and my growing concern over proposed changes in public policies regarding broadband deployment. The more comprehensive attached letter to both of you attempts to do just that.

As you move forward with various FCC rulemaking proceedings. I hope you will take these thoughts into consideration. It is my sincere hope that under your Chairmanship the FCC will ensure that the Internet remains openly accessible and continues to flourish.

My letter makes the following central points:

- The policy direction suggested in particular by the broadband "framework" NPRM could have a profoundly negative impact on the Internet. and the availability of the high-capacity telecommunications connections so necessary to its current and future openness and competitive nature.
- The notion that open, nondiscriminatory telecommunications platforms no longer serve the public interest when they are used to provide so-called "broadband" services is mistaken. Preventing competitive telephone companies from leasing elements of the incumbent carriers' networks at cost-based rates to provide competing services, and barring Internet service providers from utilizing the underlying telecommunications services necessary to serve consumers. could deny competitors the very capabilities they need to survive. let alone flourish. in the market. Such an approach would effectively wall off the local telephone network from competitive entry and eviscerate any chance of fostering competition and innovation in these interrelated worlds.
- Contrary to the assumptions of some. "broadband" is no different than "narrowband" in terms of being a bottleneck on-ramp to the Internet that requires appropriate regulation in order to protect consumers and businesses from monopoly abuses. **Also**, the belief that extension of fiber further into the network somehow creates a wholly new network that should be closed off to competitors is equally without merit.

May 20, 2002

- **The** concept of “internodal” competition, like many appealing notions, appears profound on the surface, but quickly loses credibility upon closer inspection. Potential modalities – such as satellite and fixed wireless systems – offer the **future** promise of niche services in the broadband market but lack the technical characteristics that would enable them to offer a viable third or fourth alternative to DSL and cable modems.
- There is no possible justification for effectively closing competitors’ access to the local telephone network and effectively terminating the robust “intramodal” competition that competitive carriers seek to bring to the market. The residential broadband market is at best a telco/cable duopoly, while the vast majority of American businesses continue to rely solely on the incumbent local telephone network. Open access to all transmission media is the only way to guarantee that every ISP can reach every possible subscriber by every means available.
- The notion that the local telephone companies need any additional incentives to deploy broadband services is especially pulling. All competitive enterprises **know** that competition is its own incentive, and no company can afford to sit on the sidelines and watch its competitors take the market. To the extent the ILECs believe they can choose to do so, of course, it is yet another sign that they have market power in providing broadband services. Further, as the Supreme Court just held, the TELRIC standard provides ample compensation to the ILECs for CLECs’ use of their facilities. Of course, the fundamental observation is that there is no lack of broadband deployment in the United States; the only cogent public policy issue concerns the competitive deployment of broadband facilities.

In closing, there appears to be no viable reason to step back from the requirements of the Act, the FCC’s own pro-competitive legacy, and the pro-competitive economic policies of the Bush Administration, to embrace a future where, at best, consumers can only receive what unregulated monopolies and/or duopolies are willing to give them. Certainly such a retrograde step would not be consistent with my own personal vision.

I hope that you might find these thoughts useful as you undertake your policy deliberations. Please do not hesitate to let me know if further discussion seems merited.

Sincerely,



Vint Cerf



Vinton G. Cerf  
Senior Vice President  
Internet Architecture &  
Technology

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May 20, 2002

The Honorable Donald Evans  
Secretary  
United States Department of Commerce  
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The Honorable Michael Powell  
Chairman  
Federal Communications Commission  
445 12<sup>th</sup> Street, S.W.  
Washington, D.C. 20554

Dear Secretary Evans and Chairman Powell:

I am writing you both today out of a desire to assist in your deliberations regarding proposed changes in this nation's public policies governing the deployment and use of so-called "broadband" telecommunications technologies. As the Department of Commerce considers adopting a national broadband policy, the Federal Communications Commission has embarked on a number of rulemaking proceedings pertaining to broadband deployment. From my perspective, the Commission appears poised to take certain steps which could undo much of the pro-competitive promise of the Telecommunications Act of 1996, and consign American consumers to a broadband future controlled by the dominant telephone and cable bottlenecks. As I explain below, I believe strongly that U.S. policymakers should heed important historical lessons about the rise and success of the Internet, and ensure that competitors and consumers alike have access to the still-developing broadband world through open, nondiscriminatory telecommunications platforms.

Over the course of twenty-five years of working with the Department of Commerce and the FCC, my experience has proven that regardless of the issue, both agencies have stood steadfastly for a vision of public policy that fosters robust competition and innovation in all Internet and telecommunications-related markets. Over the past few months I have engaged in especially helpful meetings on a number of issues with Assistant Secretary Nancy Vinton. I was particularly honored to be included as a participant in her broadband "roundtable" last October, which served as a precursor to the broadband deployment proceeding initiated by NTIA in November. I also was honored to address the Commission this past February as part of the Chairman's "Distinguished Lecture" series, and to have the opportunity to meet and talk with Chairman Powell.

Today, I want to offer you my view of key elements of broadband policy, and convey my concerned observations about several broadband-related regulatory proceedings now underway at the FCC. In my view, the policy direction suggested by these proceedings could have a profoundly negative impact on the Internet, and the availability of the high-capacity telecommunications connections so necessary to its current and future openness and competitive nature. I believe the FCC direction is paradoxically self-inconsistent and at odds with the pro-competition philosophy of the Administration in general.

ORIGINAL

As both of you may know, I have a long history of involvement in the initiation and growth of the "network of networks" we now call the Internet. I derived great satisfaction as an engineer in the mid-1970s from my collaboration with Bob Kahn on the development of a suite of networking protocols, the Transmission Control Protocol and Internet Protocol ("TCP/IP"). The IP protocol in particular proved to be a remarkably potent realization of a multi-network open architecture. By its very design, the protocol was intended to be ubiquitous and open to all types of applications, carrying all kinds of content, over all forms of transmission technology, by all sorts of service providers. Over the intervening years scores of protocols have been layered on top of IP and its adjunct protocol, TCP -- from the Domain Name System (DNS) protocols to the World Wide Web protocol (notably HTTP) -- but the role of IP as the open standard transcending technologies and modalities remains.

Of course, merely inventing a particular protocol for delivering bits of information from one end of the country to another does not guarantee that one can create applications, services, and content that are able to actually utilize this delivery system. Although the IP protocol has allowed the creation of open, interconnected networks, in reality the networks can only be as open as the various conduits used to reach them. It is here, at the "edge" of these otherwise-open networks, where the dictates of public policy can have such a profound impact. In this regard, the FCC first helped set the stage for small pieces of protocol to leap from blackboards and laboratories into the vibrant marketplace.

The FCC has a long and distinguished legacy of support for non-regulation of information services generally and the Internet in particular. Part of this legacy entails embracing the straightforward concept that all providers of information services, content, and applications have an equal right to use the local telephone network to reach their customers. This policy of nondiscriminatory treatment was established back in the late 1970s in the so-called Computer Inquiry proceedings, and the resulting rules governing how the telephone companies must unbundle and offer their basic transmission services to unregulated enhanced service providers ("ESPs") on the same rates, terms, and conditions that they offer such basic services to themselves. These Computer Inquiry interconnection and unbundling rule, have been in place for nearly a quarter century now, and have had a profoundly positive and far-reaching impact on this country's economic and social landscape. In particular, literally thousands of players were free to unleash their creative, innovative, and inspired product and service ideas in the competitive information services marketplace, without artificial barriers erected by the local telephone companies. I am firmly convinced that the Commission's foresight in this area contributed strongly towards the commercial introduction, rise, and incredible success of the Internet.

The 1996 Act built on this regulator's legacy in the information services area (as well as the long distance and equipment markets), by mandating that the local telephone network monopolies be broken open once and for all. Through the establishment of various pro-competitive requirements, such as interconnection, unbundling, collocation, and resale, Congress sought to give would-be competitors the tools they would need to pry open a market that had never seen the light of competition (in that vein, it is especially gratifying that the U.S. Supreme Court last week reaffirmed the FCC's "TELRIC" (Total Element Long Run Incremental Cost) standard as fully consistent with the Telecommunications Act). Indeed, the 1996 Act essentially mirrored the FCC's conclusion in the Computer Inquiry proceedings: access to monopoly-controlled facilities must be provided so that non-monopolies may compete. While we still are a long way from significant competition in the local market, the tools are available -- if the regulators are prepared to act on this mandate.

Unfortunately, I **am** beginning to see troubling signs that the FCC's pro-competitive legacy, and the resulting benefits to American consumers and businesses, may be in serious jeopardy. Over the past few months, the FCC has initiated several interrelated rulemaking proceedings that appear to have at their core the single-minded but mistaken notion that open, *nondiscriminatory* telecommunications platforms no longer serve the public interest when they are used to provide so-called "broadband" services. In particular, the Commission has suggested an intention to prevent competitive telephone companies ("CLECs") from leasing elements of the incumbent telephone companies' ("ILECs") networks to provide competing services, *contrary* to the dictates of the Telecommunications Act. Moreover, the Commission has suggested that its longstanding Computer Inquiries rules -- which allow Internet service providers (ISPs) to utilize the underlying telecommunications services necessary to serve consumers -- no longer are necessary in a broadband world. In other words, the FCC appears determined to deny CLECs and ISPs the very capabilities they need *to survive*, let alone flourish, in the market. Together the proposals, if adopted, would effectively wall off the local Telephone network from competitive entry and eviscerate any chance of fostering competition and innovation in these interrelated worlds.

As far as I can discern, the Commission appears to premise its suggested approach on a few key mistaken "factual" assumptions: (1) "broadband" is a different son of animal from "narrowband;" (2) robust "internodal" competition exists or soon will exist between different facilities-based providers of broadband services; and (3) the incumbent local phone companies in particular require additional incentives to deploy Digital Subscriber Line ("DSL")-based broadband services. From this engineer's perspective, none of these assumptions have any merit.

First, my engineering training and instincts chafe at the notion that something we choose *to call* "broadband" is something wholly separate and apart from *narrowband* or, indeed, from the underlying network that supports it. In the context of the local telephone network, DSL technology is merely the latest in a continuing stream of incremental improvements to the use of the existing telephone network. DSL constitutes a group of copper-based technologies that encompasses a family of related protocols, all of which collectively have one job: transmitting information over existing copper local loops. DSL technologies can do this job at higher bit rates than more traditional "dial-up" modems, but there is little else to distinguish them. Moreover, this transmission path should not in any way be confused with one of the more common applications of DSL: Internet access. While DSL essentially is an "edge" technology that can be and is used to reach the Internet, DSL is not in any way equivalent *to* the Internet. Building an anticompetitive telecommunications policy around the ordinary capabilities of DSL, and one of its many applications, makes no sense to me. Also, the notion that extension of fiber further into the network somehow creates a wholly new network that should be closed off *to* competitors equally without merit.

This observation is particularly crucial in the context of new "last mile" access technologies such as Gigabit Ethernet ("GE"). There are two important facts to keep in mind about GE as a means of accessing data networks: (1) it is a thousand times faster than the best cable modem or DSL services, and (2) it *is symmetric*, meaning it can deliver data at these same speeds in both directions. These are vital differences from currently available high-speed access technologies that tend to be asymmetric, typically supporting higher delivery speeds towards subscribers and slower ones from them. The significant point, of course, is that all of these various "competing" services are delivered on monopoly-controlled channels.

Second, the concept of "internodal" competition, like many appealing notions, appears profound on the surface, but quickly loses credibility upon closer inspection. Physics gets in the way of the supposed competition. It is true that the phone companies and cable companies compete today in many places to provide high-speed, asymmetric Internet access to residential customers. However, this competition is not ubiquitous. Even with comparatively wider coverage, DSL is still not available to many consumers because of distance from their central offices, while some cable providers may not have invested in the requisite hybrid fiber/coax technology to provide cable modem service.

Moreover, other potential modalities — such as satellite and fixed wireless systems — lack the technical characteristics that would enable them to offer a viable third or fourth alternative to these near-ubiquitous modalities. In particular, satellite-based broadband service (1) is only available by line-of-sight, (2) is vulnerable to precipitation effects and latency problems, (3) utilizes expensive or inefficient technology (including either costly two-way dishes or separate telephone "dial-up" return), and (4) typically yields lower quality and bandwidth. Fixed wireless service (such as MMDS) possesses many of the same technical drawbacks as satellite service, as well as the additional factors of the limited availability of spectrum and shared spectral bands. In short, while these technologies offer the promise of niche services in the broadband market, neither comes close to the widespread reach of the local telephone networks and cable networks.

At best, the residential broadband market is a duopoly — and in the worst case, consumers have only one choice or, in poorly served areas, **no** choice at all. This circumstance seems hardly likely to result in **driving the** benefits of lower prices and innovative service offerings that would come from a more thoroughly competitive market. Indeed, the Consumer Federation of America recently released a detailed report exposing the myth of internodal competition in the residential high-speed Internet market, and demonstrating the negative consequences to consumers of a cable/telco duopoly. In addition, cable systems generally do not serve businesses, so the vast majority of American businesses continue to rely solely on the incumbent local telephone network. In my view, then, there is no possible justification for effectively closing competitors' access to this network that would result in termination of the robust "intramodal" competition that CLECs seek to bring to the market. Indeed, I am persuaded that open access to **all** transmission media is the only way to guarantee that every ISP can reach every possible subscriber by every means available. Of course, open access does not mean free access. The suppliers of the alternative transmission media should be fairly compensated for providing such access, as required by the Telecommunications Act. **As** the Supreme Court held last week, the TELFUC standard provides ample compensation to the ILECs for CLECs' use of their facilities.

Third, I **am** genuinely puzzled by the notion that the local telephone companies need any additional incentives to deploy broadband services. To begin with, as all competitive enterprises know well, competition is its own incentive. The local telephone companies claim they are battling fiercely with the cable companies, **and the few** remaining CLECs, to provide broadband services to American consumers. In such an environment, no company can afford to sit on the sidelines and watch its competitors take the market. To the extent the ILECs believe they can choose to do so, of course, it is yet another sign that they have market power in providing broadband services.

In addition, the ILECs' argument that they are not adequately compensated for providing wholesale broadband functionalities, which in turn fails to stimulate facilities-based investment by both ILECs and CLECs, does not bear close scrutiny. No less an authority than the Supreme Court concluded that the ILECs' "lack of incentives" argument "founders on fact." Among other things, the TELRIC standard includes direct and overhead costs, depreciation expense, and risk-adjusted cost of capital. As Justice Souter observed, "TELRIC rates leave plenty of room for differences in the appropriate depreciation rates and risk-adjusted capital costs depending on the nature and technology of the specific element to be priced." The Court ultimately determined that it is reasonable to prefer TELRIC over "alternative fixed-cost schemes that preserve home-field advantages for the incumbents."

More fundamentally, however, there is no lack of broadband deployment. As Assistant Secretary Victory, Under Secretary Bond, and FCC officials uniformly have asserted in recent months, broadband deployment in this country is robust. Current figures from numerous studies demonstrate that between 70 to 85 percent of all Americans have ready access to some broadband services. If their claims to shareholders and Wall Street are any indication, the ILECs certainly show no signs of slowing deployment, especially as a result of complying with the Act. Any public policy issue pertaining to broadband should focus on the comparatively low take-rates (somewhere around 10 percent of American consumers). Excessive pricing by the two dominant providers, and a lack of compelling consumer applications, are market realities that cannot be blamed on pro-competitive regulation.

Thus, there appears to be no viable reason for the FCC to step back from the requirements of the Act, its own pro-competitive legacy, and the pro-competitive economic policies of the Bush Administration, to embrace a future where, at best, consumers can only receive what unregulated monopolies and/or duopolies are willing to give them. Certainly such a retrograde step would not be consistent with my own personal vision. I am well aware that some may not share my conviction that consumers are best served by open platforms spread across many competing modalities. Nonetheless, should the United States Government decide that it does not have the will or inclination to require that one of the two dominant modalities -- cable -- create an open platform, it should not lack the wisdom to ensure that the one remaining platform -- telephony -- remains open to all. In fact, as I have suggested above, the openly accessible platform of all modalities is the heart and soul of the Internet, and was Congress' intention for the local telecom market when it adopted the Telecommunications Act.

I thank both of you for your attention to this most important public policy matter. I look forward to the opportunity to discuss with you and your staff the constructive ways in which the U.S. Government can help promote and defend competition and innovation within the telecommunications networks residing at the "edge" of the dynamic -- and open -- Internet.

Sincerely,



Vint Cerf

**BroadNet**  
**The BroadNet Alliance**

ORIGINAL

July 1, 2002

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Marlene H. Dortch  
Secretary  
Federal Communications Commission  
445 12<sup>th</sup> Street, S.W.  
Suite TW-A325  
Washington, D.C. 20554

JUL - 1 2002

FEDERAL COMMUNICATIONS COMMISSION  
OFFICE OF THE SECRETARY

**Re: CC Docket Nos. 02-33** (Appropriate Framework for Broadband Access to the Internet Over Wireline Facilities); **98-10; 95-20**

Dear Ms. Dortch:

Pursuant to Sections 1.2 and 1.419 of the Commission's Rules (47 C.F.R. 1.2, 1.419), the BroadNet Alliance ("BroadNet") submits the attached white paper, "The Importance of a Broad Net," as its reply comments in the above-referenced proceeding. The BroadNet Alliance is a coalition of national, regional, and local independent Internet service providers (ISPs) that supports appropriate and effective regulatory oversight of the incumbent local exchange carriers (ILECs) to ensure quality, affordability, and innovation through competition. BroadNet is responding to specific portions of the Commission's Notice of Proposed Rulemaking, 17 F.C.C.R. 3019 (2002), and initial comments filed by several parties, questioning the need to continue retaining the Commission's nondiscriminatory access requirement as established in the Computer Inquiry proceeding.

The attached BroadNet white paper explains how the FCC's ISP-related policies have played, and continue to play, a pivotal role in the rise and success of the online world. The paper describes how the FCC's fundamental regulatory principles were first enunciated in the Computer II order of 1980, where the Commission mandated that the ILECs sell to all ISPs, on an equitable and nondiscriminatory basis, the "last mile" telecommunications connections necessary to reach their customers. The resulting early growth and incredible success of the online world -- both before and after the commercial introduction of the Internet -- is traced, and linked to the competing robust choices in services, applications, and content made available to American consumers.

Just as consumers now are able to connect to and utilize any ISP via the first generation of "narrowband" Internet access and services, ISPs now seek the right to serve customers for the next generation of the Internet via "broadband" connections. The BroadNet paper points out in particular that the same "equal access" rules should apply because dial-up-based (narrowband) Internet access and digital subscriber line (DSL)-based (broadband) Internet access both utilize the same local telephone facilities and

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[www.broadnetalliance.org](http://www.broadnetalliance.org)

infrastructure, and allow consumers to reach the same types of content and services from the Internet.

In its conclusion, the paper urges the FCC not to abandon its longstanding pro-competitive, pro-consumer policies at such an obviously critical juncture in the evolution of the Internet and the information economy. **Just** as important, the FCC must begin to enforce its existing **rules** to protect consumers and ISPs alike from an extension of the Bell Companies' local telephone monopoly into broadband and the Internet. In BroadNet's view, the prescient right answer in 1980 is still the right answer today – open markets and consumer choice.

Pursuant to the Commission's **Rules**, an original and four copies of this cover letter and the attached white paper are being provided to you for inclusion in the docket of the above-referenced proceeding.

Sincerely,



Maura J. Colleton  
Executive Director  
The BroadNet Alliance

cc: Chairman Michael Powell  
Commissioner Kathleen Abernathy  
Commissioner Michael Copps  
Commissioner Kevin Martin  
Marsha MacBride  
Kyle Dixon  
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FEDERAL COMMUNICATIONS COMMISSION  
OFFICE OF THE SECRETARY

**THE IMPORTANCE OF A BROAD NET**  
*THE SIGNIFICANT ROLE OF ONLINE SERVICE  
PROVIDERS IN THE DEVELOPMENT AND SUCCESS OF  
THE INFORMATION AGE*

**JULY 2002**

**A BroadNet Alliance White Paper**

**BroadNet**

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## **“FASHIONING A BROAD NET” -- THE SIGNIFICANT ROLE OF ONLINE SERVICE PROVIDERS IN THE DEVELOPMENT AND SUCCESS OF THE INFORMATION AGE**

### INTRODUCTION

The commercial Internet, while less than a decade old, already has had a profound impact on the way Americans live, work, and play. At the center of this amazing success story are online service providers – including most recently Internet service providers (ISPs) – who have played a critical role in the development of the electronic world we now call the World Wide Web. These companies, and their progeny, have endeavored to continue providing tens of millions of consumers with the tailored services, applications, and content they desire. Key to their success is the enforcement of a fundamental regulatory principle, first enunciated by the Federal Communications Commission in 1980, mandating that the incumbent local exchange carriers (“ILECs”) make available to ISPs, on a nondiscriminatory basis, the “last mile” telecommunications services necessary to reach their customers. This “equal access” policy in **large** part enabled the rise and amazing success of the online world, and the astonishing array of choices made available to all consumers throughout the United States.

This BroadNet white paper explores the deep roots of the online services market, beginning with the early enhanced service providers which helped pave the way for the Internet. The paper **also** examines how the FCC’s nondiscriminatory access policy created the conditions that allowed consumers to reach the online providers of their choice. Addressing the advent **of** the ISP, the paper describes the rich array of services and content made available through narrowband “dial up” connections to the Internet.

As the broadband era dawns, independent ISPs seek to offer to consumers the ability to connect to, and utilize, the next-generation applications that ride on broadband transmission services. In so doing, these ISPs hope to provide much-needed competition to the retail ISP offerings provided by the ILECs and cable companies. At this critical juncture, BroadNet calls on the FCC not to retreat from its decades-long commitment to maintaining nondiscriminatory access to the telecommunications platforms that lead to the online world.

### **THE INTERNET: YESTERDAY, AND TODAY**

#### **A. In The Beginning: The Online World Before the Internet**

The online services market did not simply materialize out of thin air in 1995. In the 1970s, 1980s, and early 1990s, there was no commercial Internet, no World Wide Web, no use of web browsers or search engines or Instant Messaging. However, as far back as the late 1960s, small, innovative companies such as CompuServe and Prodigy were pioneering the use of interactive information content services. These enhanced service providers (ESPs) built a loyal base of customers who communicated via computer connections using FTP, Usenet, and other protocols, and utilized a vast array of applications in the process.

A simplified timeline of the thirty years between the initial rise of online services and the birth of the commercial Internet might prove helpful:

#### **1960s**

- International airlines cooperate to build a packet-switching reservations network that uses leased telephone lines to connect nine international switching centers. By 1973 the volume over this network exceeds all international telegraph traffic.

- GE begins a commercial time sharing service that serves 25 US cities and sites in Canada, Mexico, Britain, the Netherlands, and France.
- Advent of ARPANET
- CompuServe begins as a time share service.
- Tymnet begins work on its commercial network to provide time sharing services.

## 1970s

- Boll, Beranek, & Newman (BBN) take the lead in developing the ARPANET, the precursor to the Internet.
- FTP released by Jon Postel (1972).
- NASDAQ begins transmitting stock quotations (1971). By 1975 there are 1,700 terminals connected to this network.
- CompuServe reaches 400 business subscribers across the country (1972). Items available online include bulletin boards, databases, and games.
- Email, which already existed on time sharing computers, is added to ARPANet protocols (1973).
- BBN opens Telenet, the first commercial version of the ARPANET (provides time share services) (1974). General Motors was an early customer.
- Tymnet grows to 160 nodes and can serve 1,000 or more users simultaneously (1976).
- Apple II users use A.P.P.L.E.'s "Apple Box" to send and receive programs via the phone line by way of a cassette port.
- First USENET newsgroups established (1979).
- Release of the DC Hayes Micromodem II (1979).
- Telenet is acquired by GTE (1979).
- The Source is established (1979).
- CompuServe begins to offer online services to personal users (1979).
- Beginnings of floppy & file transfer-based services. (e.g., Commerce Business Daily listings).

## 1980s

- *Federal Communications Commission (FCC) issues initial Computer II decision in the Computer Inquiry proceeding (1980).*
- Combination of inexpensive desktop computers (PCs) and network ready servers allows corporations to join the Internet. Corporations begin to communicate with each other and their customers online.
- ARPANET fully converts to TCP/IP Standard (1983).
- FidoNet is created and quickly becomes a successful BBS service (1983).
- US companies begin to offer commercial email services (MCI Mail, Sprint's Telemail, Dialcom).
- First "Free-net" created at Case Western University for the Society for Public Access Computing.
- Library of Congress goes online as a telnet service.

- Internet addresses begin using top level domains (tlds) such as .com, .edu, .gov, and .uk (1985)
- PeaceNet offered to participants for the cost of the telephone connection plus a nominal fee to cover operating expenses (1985).
- AOL (as Quantum) launches BBS with a graphical user interface.
- Telenet is acquired by Sprint (1986).
- The WELL, an ISP is established (1986)
- Microsoft Windows is first released (1986)
- UUNet initiates service (1987)
- Internet Relay Chat (IRC) is born (1988).

### Early 1990s

- By the end of the 1980s, systems like USENET, FidoNet, and BITNET were serving several thousands of users around the world.
- The ARPANet is decommissioned. The faster NSFNET takes its place as the Internet backbone.
- The ban on commercial traffic on the Internet backbone, NSFNET, is lifted.
- Gopher is created and released.
- First audio and video broadcasts take place over a portion of the Internet known as the "MBONE."
- Lynx is developed.
- Mosaic, the first graphical web browser is deployed.
- Netscape is formed.

### 1995

- The Internet is fully privatized.

### B. The Internet Today

Now in 2002, the Internet touches nearly every aspect of daily life. This year it is estimated that there are more than half a billion Internet users worldwide, with some 200 million in the United States and Canada alone. Traffic on the World Wide Web continues to grow at a pace of 40 to 80 percent per year. A Pew Internet survey shows that more than 50 million Americans send at least one email message per day. The popular Google search engine currently indexes more than two billion web pages, and there likely are four times that number actually on the network. In support of all that

content and **traffic**, there *are* up to **4.3** billion hosts, over **120** million **servers**, and hundreds of thousands of individual networks.

The ISP market has blossomed along with the exploding use of the Internet. Despite the present-day financial difficulties in the dot **com** sector, more than 7,000 ISPs provide a whole host of services, applications, and content to tens of millions of American consumers. These **ISPs** range from the largest national providers (AOL, Earthlink, MSN) to the mid-size regional providers, to the smallest mom-and-pop operation. In support of the resulting traffic, at least forty Internet backbone networks criss-cross the country, **carrying** many trillions of bits per second.

And yet, despite this robust array of competitive choices residing at the core and at the edge of the “network of networks,” most consumers have no choice when it comes to the “**last** mile” connection to the Internet. For the **98** percent of consumers utilizing “dial-up” modems **to** connect to their favored ISP, the incumbent local exchange carrier and **its** ubiquitous network of copper loops essentially is the only game in town. Fortunately, to date that critical physical and virtual link between an **ISP** and its customer has not been subject to the unchecked whims of an unregulated monopoly. Over twenty years ago, by an act of sheer foresight, the FCC arrived at a policy decision that guaranteed every online service provider a fair opportunity to compete over the local telephone network.

## **ISPs AND EQUAL ACCESS TO LOCAL TELECOM PLATFORMS**

### **A. The FCC Plays A Major Role**

The advent of the online world, and all it **has** provided to consumers, cannot be viewed as a mere happy accident of history. Beyond the incredible efforts of thousands of brilliant and energetic minds in this nascent marketplace, a key regulatory decision by **the** Federal Communications Commission, and its reiteration over twenty years, has had a considerable impact on the ability of consumers to even reach the growing torrent of online services.

#### **1. The Basic/Enhanced Distinction**

The FCC's Comuuter Inquiry proceeding began in the mid-1960s as a revolutionary attempt by the Commission to separate out those services which should continue to be regulated as common carriage offerings under Title II of the Communications Act, from those services which utilize communications inputs in a highly competitive, and unregulated, "value-added" services marketplace. In the now-seminal Computer II order, released in 1980, the Commission classified all services offered over a telecommunications network as either "basic" or "enhanced." Put simply, "basic transmission services are traditional common carrier communications services" provided by telephone companies, and "enhanced services are not."<sup>1</sup> More specifically, the Commission observed that basic service constitutes "the common carrier offering of transmission capacity for the movement of information," which involves providing a

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<sup>1</sup> Computer II, Final Order, 77 FCC Rcd 384 (1980).at 430 (para. 119).

communications path “for the analog or digital transmission of voice, data, video, etc. information.”<sup>2</sup> All basic services are regulated by the FCC as common carriage.

In contrast, an enhanced service must meet one of three criteria: it **must** (1) employ computer processing applications **that** act on the format, content, protocol, or similar aspects of the subscriber’s transmitted information; (2) provide the subscriber additional, different, or restructured information; or (3) involve subscriber interaction with stored information. Early examples of enhanced services include audiotext, videotext, and email. In all cases, an enhanced service by definition is “offered over common carrier transmission facilities used in interstate communications;” in other words, a basic communications component underlies every enhanced service, so that an enhanced service essentially “rides” on a basic service. Because enhanced services are provided in a competitive marketplace, the FCC decided to leave them unregulated.

## 2. **The “Equal Access” Doctrine**

While the Computer Inquiry rules are remembered largely, if not solely, for the creation of these important definitional distinctions between regulated basic services and unregulated enhanced services, perhaps an even more critical decision followed. The FCC had recognized that because basic communications service constitutes “the building block” upon which enhanced services are offered, “enhanced services are dependent upon the common carrier offering of basic services...”<sup>3</sup> The FCC expressed concern that AT&T would have the motive and opportunity to provide unregulated enhanced services

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<sup>2</sup> Id. at para. 93.

<sup>3</sup> 77 FCC Rcd at 475 (para. 231).

in a way that used its own underlying communications facilities and services in a discriminatory and anticompetitive manner.

In order to protect against the potential for carriers to discriminate and commit anticompetitive acts against other ESPs, the Commission required such carriers to unbundle and provide the underlying basic transmission services to all ESPs on a nondiscriminatory basis. The thrust of this “equal access” requirement, the Commission explained, is “to establish a structure under which common carrier transmission facilities are offered by them to all providers of enhanced services (including their own enhanced subsidiary) on an equal basis.” This means that “the same transmission facilities or capacity provided the subsidiary by the parent, must be made available to all enhanced service providers under the same terms and conditions.” This requirement “provides a structural constraint on the potential for abuse of the parent’s market power through controlling access to and use of the underlying transmission facilities in a discriminatory and anticompetitive manner.”<sup>4</sup>

The three-part definition of “enhanced services,” and the nondiscriminatory unbundling and other requirements applicable to carriers were codified in section **64.702** of the FCC’s rules.<sup>5</sup> Those rules authorized all common carriers, excepting AT&T and GTE, to provide enhanced services directly to the public. AT&T and GTE were prohibited from providing such services **unless** they complied with specific requirements, including establishing separate corporations providing enhanced services, which **must (1)** obtain all transmission facilities pursuant to tariff, (2) operate independently from the

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<sup>4</sup> Id. at 474 (para. 229).

<sup>5</sup> 47 C.F.R. Section 64.702 (2001).

carrier, (3) deal with affiliated entities on an arm's length basis, and (4) reduce to writing all material transactions between the carrier and the affiliate. In addition, carriers were required (1) not to sell or promote directly any enhanced services, (2) to disclose publicly all network design and technical standards information affecting changes to the underlying telecommunications network, and (3) not to provide customer proprietary information to the separate corporation!

### 3. An Unwavering Principle

Over the past twenty years, the fundamental nondiscriminatory unbundling requirement has been retained through the various Comuuter Inquiry proceedings. The FCC did clarify in subsequent orders that all nondominant carriers were required to make available underlying transmission capacity on nondiscriminatory terms, while dominant carriers operating under the Comuuter II structural separation rules (the Bell Operating Companies (BOCs) and AT&T) were prohibited from offering basic and enhanced services together at a single bundled price.<sup>6</sup> So, even while the Commission replaced the BOCs' structural separation requirements with nonstructural safeguards, it affirmed and strengthened the requirement that the BOCs must acquire transmission capacity for their own enhanced services operations under the same tariffed terms and conditions as competitive ESPs.<sup>8</sup>

<sup>6</sup> See 47 C.F.R. Section 64.702(b), (c).

<sup>7</sup> Under the more flexible Comuuter III rules, the BOCs were allowed to jointly market enhanced services and telecommunications services, but they remained obligated to offer the telecommunications service component separately through the Comparably Efficient Interconnection (CEI) and Open Network Architecture (ONA) requirements.

<sup>8</sup> CPE/Enhanced Services Bundling Order (2001), at para. 4

More recently, following passage of the Telecommunications Act of 1996, the FCC found that the preexisting Computer Inquiry requirements are consistent with the statute, and continue to govern BOC provision of information services.<sup>9</sup> The Commission explained that the Computer Inquiry-based rules are “the only regulatory means by which certain independent ISPs are guaranteed nondiscriminatory access to BOC local exchange services used in the provision of intraLATA information services.”” Continued enforcement of these safeguards is necessary, the Commission concluded, and “establishes important protections for small ISPs that are not provided elsewhere in the Act.”” In particular, where a BOC affiliate provides an information service bundled with its own facilities-based telecommunications services, “the affiliate would be subject to a Computer II obligation to unbundle and tariff the underlying telecommunications services used to furnish any bundled service offering.””

Within the last year, the FCC has emphasized the continued retention the “fundamental provisions” contained in the Computer Inquiry decisions “that facilities-based carriers continue to offer the underlying transmission service on nondiscriminatory terms, and that competitive enhanced services providers should therefore continue to have access to this critical input.”” Indeed, the Commission noted that it sought “to ensure that competitive enhanced service providers continue to have non-discriminatory

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<sup>9</sup> Non-Accounting Safeguards Order, 11 FCC Rcd 21905 (1996), at para. 132, remanded on other grounds.

<sup>10</sup> Id. at para. 134.

<sup>11</sup> Id.

<sup>12</sup> Id. at para. 136.

<sup>13</sup> Id. at para. 12.

access to the underlying transmission **capacity**...”<sup>14</sup> In particular, the Commission stressed, “the separate availability of the transmission service is fundamental to ensuring that dominant carriers cannot discriminate against customers who do not purchase all the components of a bundle from the carriers, themselves.”<sup>15</sup> In addition, the Commission observed that not even the BOCs themselves disputed that “all incumbent LECs are required to offer basic local exchange service on an unbundled, tariffed, nondiscriminatory **basis**.”<sup>16</sup>

Thus, the FCC repeatedly and forcefully has acknowledged the “fundamental provisions” ~~of~~ the Computer Inquiry decisions that protect an ESP’s ability to access a “critical input.” Under the current FCC **rules**, BOCs that provide information services **are** required to offer the underlying telecommunications transmission component separately pursuant to tariff, and their own information service offerings must utilize such telecommunications services in the same nondiscriminatory manner. **All** other carriers owning transmission capacity and providing enhanced services must unbundle their basic from enhanced services and offer the telecommunications services to other enhanced service providers under the same terms and conditions under which they provide such services to their own enhanced service operations.

It must be stressed that equal, nondiscriminatory access does **not** constitute **anything** like a “free ride” on the ILECs’ networks, as some have alleged. For over twenty years, **ISPs** have paid above-cost retail rates to the ILECs **for** the use **of** their local network. **All** ISPs have sought is to ensure that the rates they pay, and the services they

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<sup>14</sup> Id. at para. 39.

<sup>15</sup> Id. at para. 44.

<sup>16</sup> Id.

receive, are not any different than that obtained by any other **ISP** – and in particular the ILECs' own ISPs. Unless an ILEC violates the Communications Act by failing to assess any telecommunications-related charges on its own ISP, an equitable ride is not a free one.

## **B. Online Services Before the Internet**

Against the backdrop of the Computer Inquiry regulatory structure that has been in place since 1980, it is instructive to briefly review the initiation, growth, **and** ultimate widespread success of a robust and feature-rich information services marketplace. One can reasonably conclude that much of the success, if not the existence, of this **market has** its very roots in the FCC's far-reaching Computer Inquiry precedent.

Many service providers were in existence and flourishing long before the Internet was made available for commercial pursuits. These early providers utilized the local telecommunications networks to reach and interact with their customers – just **as** ISPs do today. **The** types of pre-Internet online services and service providers are listed briefly below.

### **1. Early Types of Services**

- Remote Access Data Processing Services (Time Share Services)

Time Share services **allow** users to dial into more advanced data processors (data processors were scarce and expensive at the time). Time Share services relied on regulated telephone services for transport. Time **Sharing** Services *can* be traced **back** to the late *60s*.

- Audiotext Services

These include services such as interactive phone menus and voice mail.

- Videotext Services/Online Interactive Data Services

These services send information (news, stock quotes, etc.) from computer databases over telephone lines to subscribers' terminals, personal computers, or teleprinters. Government-owned telephone companies developed the first videotext systems in Europe in the 1970s. Videotext systems delivered information and transactional services such as banking and shopping. These systems differed from broadcast media delivery systems due to the special qualities of interactivity engendered by the technology which allowed the user to personalize his media use rather than act as a passive member of an aggregate audience.

Services provided by videotext fall into one of three areas: (1) information retrieval services such as obtaining stock prices or weather forecasts; (2) transactional message services which enable the purchasing of merchandise over the network; and (3) interpersonal message exchanges which may include conferencing, chat channels, or electronic mail.

Although **users** connected to early videotext systems on dedicated terminals, most online services were soon accessed by the user via a phone line and a personal computer equipped with a modem or Ethernet connection. Videotext users typically paid a per-use charge or a monthly subscription fee to access the service.

In the United States, videotext systems were initially launched by the newspaper publishers who provided news and advertisements through special terminals hooked up to television monitors. Although most of these services met with little commercial success, the increased diffusion of personal computers into the home eventually enabled consumer oriented videotext systems to succeed in the mass marketplace. By the mid-1990s, more than **four** million households had subscribed to one or **more** of the largest consumer-oriented **U.S.** videotext systems: America-Online, Prodigy, CompuServe, and Genie.

#### ▪ Bulletin Board Systems

In the late seventies, computer users began to create small information systems that could be accessed over the phone lines. These "bulletin board systems" consisted of a single computer that was always waiting to answer the phone. When it rang, the computer would answer the phone and establish two-way communication via the modem. A program running on this computer would then allow the calling computer to do various things, such as reading messages left by other users, or posting messages for others to read. **As** the BBSs became more sophisticated, it was possible to send and receive programs or other data files via modem, play games, or participate in online surveys. The bulletin board operator was responsible for maintaining the software and the message databases, often leaving his computer on for **24** hours a day to be available for callers.

- **Airplane Reservation Services**

In the early 1960s, American Airlines and IBM created the **SABRE** online reservation system. **An** international system soon **was** built, and in 1965 the Societe Internationale de Telecommunications Aeronautiques (SITA), decided to build a new packet-switching network that **would** use leased telephone lines to connect **nine** switching centers in Amsterdam, Brussels, Frankfurt, Hong Kong, London, Madrid, New York, Paris, and Rome.

- **Online Database Searching (Libraries, Business, News)**

Examples **of** these services included Lexis, Dow Jones News/Retrieval Service, Dialog, News Corp.'s Delphi, Dial Data, BIX, and Microsoft Network.

- **Electronic Data Interexchange (EDI)**

EDI involved the electronic exchange of trade-related documents.

- **Point of Sale (POS) transactions**

POS transactions facilitated credit card purchases by connecting swipe machines connected to large databases over the phone lines.

- **Electronic Mail**

E-mail began **as** a service provided only between users on a particular network (i.e., CompuServe users could send messages to other CompuServe users). It then expanded to include Internet mail. MCI Mail **was** one of the first commercial services offered.

- **Usenet News Groups**

Usenet began at Duke University and **was** a **system** for distributing online forums, called "newsgroups," among computers running the UNIX operating system.

- **Internet Protocols**

Early Internet-like protocols developed before the World Wide Web and graphical **browsers** include: Telnet, File Transfer (**FTP**), Gopher, **WAIS**, Internet Relay **Chat** (**IRC**), and Multi-User Dungeon (**MUD**).

## 2. Early Providers

### ▪ Tymnet and Telenet

As a precursor to interactive online services, Time Share services provided remote access to **data** processing services using a modem and the phone network. Early providers **of** Time Sharing services included Tymnet & Telenet. The companies' nodes acted as computer gateways to other online computer services across the country. Users paid a fee for using the Tymnet **or** node, and an additional fee for the specific service they accessed. Telenet later became SprintNet. By the **mid-1970s**, a number of commercial entities began to see the potential of providing data communications services independently of time-sharing services.

### ▪ The Source

The Source began in 1979 and lasted until 1989. For much **of** its life, it was owned by Reader's Digest. It was accessible through Telenet **or** Tymnet nodes. The Source had many services available online, including over twenty financial and business services, access to several national and international news services, and computer-specific news features. **An** online encyclopedia, shopping, interactive games, and airline reservations were also available. Access to the Source required a \$10 monthly minimum charge, long after other national online services had either eliminated or significantly lowered such charges. CompuServe bought out the Source, and its subscribers merged **with** that service in 1989.

### ▪ CompuServe

CompuServe is the longest continually operating **ISP** in the online services business. Founded in 1969 as a computer time-sharing service, CompuServe drove the initial emergence of the online service industry. In 1979, CompuServe became **the first** service to offer electronic mail capabilities and technical support to personal computer users. CompuServe broke new ground in 1980 **as** the first online service to offer real-time chat with its CB Simulator. By 1982, the company had formed its Network Services Division to provide wide-area networking capabilities to corporate clients. Early CompuServe services included a Hollywood Hotline and an Airline Reservation Service cosponsored by several airlines.

### ▪ Prodigy

Prodigy **was** founded in 1984, **as** the first consumer online service (ISP). Prodigy **was** also the first consumer online service to offer World Wide Web access, and the **first** to offer its members the ability to publish personal World Wide Web pages.

### ▪ AOL

Founded in 1985, AOL initially offered limited online services for what was then a miniscule market of personal-computer users. A timeline of highlights from AOL's beginning years includes:

May 1985:	Date of incorporation under original founding name, Quantum Computer Services
Nov. 1985:	Quantum's first online service, "Q-Link," launched on Commodore Business Machines
<b>Aug.</b> 1988:	Quantum's "PC-Link" launched through joint venture with Tandy Corporation
Oct. 1989:	AOL service launched for Macintosh and Apple II
June 1990:	Quantum's "Promenade" service launched for IBM PS/1
Feb. 1991:	DOS version of <b>AOL</b> launched
Oct. 1991:	Quantum Computer Services changes its name to America Online, Inc.

- **Genie**

Genie, owned and operated by General Electric, began in 1985. Like other consumer-oriented online providers, Genie offered many different services to its subscribers -- including news, an online encyclopedia, online shopping, games, financial information, and areas of interest to users of various brands of computers.

- **AT&T**

**An** early skeptic of packet-switching, AT&T did eventually join the online commercial service business, with AT&T Infomaster.

### **C. And Now. the Internet - Broueht to You by 7,000 ISPs**

The entrepreneurial vision and innovations that created the early online services market, and later enabled the commercial Internet and World Wide Web, succeeded in large **part** because the telecommunications services on which the Internet applications ride **were** made transparent by federal regulation. In particular, in the wake of adoption of the FCC's Computer Inquiry rules (see Section A above), the ILECs were not allowed to constrain who provided Internet services, or how they were provided. **As** a result, tremendous innovation and investment **took** place at the edge of the network, **free** from both government and monopoly control

Beginning in the mid-1990s, independent online service providers such as AOL, Earthlink, CompuServe, Prodigy, MSN, and literally thousands of smaller firms facilitated the initial mass deployment of Internet services by giving consumers access to Internet-based content over narrowband “dial-up” telephone connections. Many of these providers began as content-based systems: users dialed into CompuServe, for example, and received content created by or affiliated with CompuServe. In the mid-1990s, these proprietary information services were still “the undisputed rulers of the on-line world, offering a mix of news, entertainment services, chat rooms and forums” on a variety of subjects. “At the time, the Internet was still in its infancy as a consumer medium. Most people considered it too forbiddingly technical to attract a mass audience.” The Internet was still mainly textual based, while the private providers offered graphical interfaces.”

As consumers began to seek access to all of the information available online, these providers started to establish access to unaffiliated content on the Internet, while still providing their own proprietary content. As one analyst put it in 1995: “All online services are incorporating the World Wide Web into their strategy. If they don’t, they could have a limited future because the Web is where the greatest amount of new content is being created.”\*The key is that these companies – now dubbed “Internet service providers” – successfully responded to changing consumer demand in a highly-competitive market.

Modem-day ISPs continue to provide enormous value to their customers. The ISP function typically includes arranging for consumer access to the Internet through

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<sup>17</sup> Ross Laver, Hieh-Tech Dinosaurs?, MACLEAN’S, Nov. 11, 1996, at 50

<sup>18</sup> Jiri Weiss, “Online Services Take the Web for a Spin”, PC WORLD, Nov. 1995, at 54 (quoting Karen Burka of SIMBA Information).

local telecommunications links. The ISP directly bills consumers for the connection, and provides various customer support functions. The ISP may also provide a rich array of content and services, such as: customized web pages, web hosting, e-mail server provision, e-mail roaming, IP addresses (static or dynamic), access to domain name search and registration, browser and search engines, anti-spam software tools, Instant Messaging, streaming audio and video feeds, public radio station broadcasts, community bulletin boards and other local content, and technical seminars and workshops. These critical functions are being provided to consumers in a highly competitive narrowband ISP market.

Although the industry is experiencing consolidation, and considerable churn, due to the recent economic downturn, there still are thousands of ISPs providing consumers with a wide variety of choices. Those choices largely would be unavailable in the absence of a fundamental requirement that consumers utilizing the telephone network have the right freely to select and utilize the ISP of their choice.

There are currently many different ways to obtain Internet service, from the barest-bone to the highly advanced. Consumers and businesses require this kind of diversity to satisfy both their pricing and service needs. In short, there is a compelling public interest in accommodating many online providers

ISPs and their services can be parsed in a variety of ways. A few are outlined below.

## 1. CUSTOMERS

ISP customers can include residential subscribers, small-to-large business users or other ISPs. Some ISPs provide service to all categories, while others target a certain sector, such as “business” or “residential”.

- **Business Class**

**Ex.:** WorldCom, Genuity, Cable & Wireless

- **Consumer/Residential**

- **National Providers**

Usually provide their own content

Usually provide multiple & advanced service offerings

**Ex.:** AOL, MSN, Earthlink, NetZero, Juno

- **Regional/Local Providers**

Offer local content (Hoonah.net at [www.hoonah.net](http://www.hoonah.net)). Offer a lower price by not providing so many bells & whistles (basic Internet connectivity)

**Ex.:** Leapfrog Internet -

<http://www.leapfroginternet.com/Choosing%20an%20ISP.htm>

*“We are differentiated from other ISPs in that we provide good value for an excellent product without the extra stuff you do not want nor need.”*

## 2. CONNECTION SERVICES

The average ISP provides dial-up access, full and fractional T1 connections, and ISDN services. Many small local providers only supply dial-up services to the residential market, while the **larger** providers offer broadband & dedicated access to **large** business customers and the smaller ISPs

- Dial-Up (ISDN, 33.6, 28.8, 56K)

- **Ex.:** A Cute Internet Service (<http://acuteinternet.com>)

- Dedicated Access (T1, T3, Frame Relay, Fractional T3, DSL, ATM)

- Broadband (DSL, Cable, Fixed Wireless, Satellite)

### 3. SERVICE OFFERINGS

As ISP services evolve, most providers are now offering webhosting, security, & filtering services, along with the traditional email, & newsgroup services. A sampling of the diversity of services **offered** includes:

- Email - Webmail/pop/imap (email access from any computer)
- Web Site Hosting
- Domain Name Registration
- Technical Support
- News/Newsgroups
- Web-based Remote Access
- Virtual Private **Networks** (VPNs)
- VoIP (Voice over IP)
- Security (VPN, Secure Server, Firewalls, Authentication)
- Static IP Addresses
- Filtering (Spam, Advertising, Adult Content, Unsecure Sites)
- Service Level Agreements (ISPs agree to provide a certain level of service; assigns customer priority)
- Scalability (a range of capacities with varying configurations of virtual ports; allows bandwidth to be allotted based on need)
- Dynamic Provisioning (allows **users** to change a service package or user profile “on **the** fly” without forcing the **user** to disconnect.)

### 4. PRICING

The variety of services offered allows for a large price range among service providers. Some offer a flat fee **for** bundled services, while others charge for each service selected. Still other **ISPs base** their **fees** on connection times or bandwidth, or provide special rates for certain subscriber groups.

Other pricing approaches:

- Prepaid and budgeted connectivity - Allows ISPs to automatically deduct or credit minutes from connection-time balances **as users surf** the web.
- Promotional Connectivity – Provides free connectivity for a pre-defined period and then redirects **users** to a registration site for continued Internet service. **As a** result, ISPs can promote their services and attract new paying customers.

- Service Wholesaling – allows ISPs to resell bundled, advanced, or differentiated services to smaller ISPs who then can offer these to end-users.
- Differentiated Content – Enables ISPs to provide specialized content to different user groups or “clubs” for additional fees. For example, users can pay for access to interactive content such as online gaming or unidirectional information such as **high-end** financial services.
- Service Priority or Demand – Dynamically allocates improved class of service **or** increased bandwidth when requested by subscribers.
- Examples of Pricing Range –
  - AllVantage <http://www.allvantage.com/> \$5.95/month, “self-service” ISP concept;
  - VerizonOnline DSL <http://www.verizon.net/pands/dsl/packages/package2.asp> \$59.95/month.

## 5. CONTENT/STRUCTURE/CONTROL

ISPs use other approaches to differentiate themselves from competitors and to increase brand recognition, customer relationships, and site traffic. As technological advances increase the ability to fashion and even manipulate a user’s Internet experience, it becomes even more important for **users** to have a choice in the ISP market. Common approaches include:

- “Pure Internet” ISPs (Earthlink – “customized by you, for you”) – provide a direct **pass** through to the Internet. Allow the user to define their Internet experience without extraneous content. Provide simple services such **as** connection & service support.
- Value-Added Approach (AOL) – **ISP** creates and aggregates exclusive and nonexclusive content, features (**e.g.**, parental controls) and functionality (**e.g.**, Instant Messaging) for subscribers. ISPs can define and provide environments for specific **users** and user groups. This approach creates new commercial service opportunities by promoting access to particular sites.
- Subscriber Redirection – IP packets can be manipulated to redirect subscribers to selected sites **or** portals. **This** feature enables increased traffic to specific sites and personalized communications with individual users.
- Sticky Site – redirects users to specific sites, such **as** the ISP’s portal, according to pre-defined rules. Site “stickiness” can be increased by allowing users to view a

service announcement, register or pay for a new service, or receive a promotional gift.

- Sponsored E-commerce – ISP encourages subscribers to visit e-commerce portals and sites by offering **sponsored** end-user access or other promotional benefits. **As** a result, ISPs increase their revenues from **the** growing e-commerce market.
- User Service Profiles – ISP tracks subscriber use to determine what services/products they may be interested in.

## **6. TARGETED/SUBJECT FOCUSED ISPs OR SERVICE PACKAGES**

Some ISPs design and offer customized service packages to meet user needs and preferences using filtering techniques and other technical tools. Other ISPs only provide service to specific groups. Targeted **areas** include:

- Children (School or Family) – (AOL, FamilyClick) (information on family-friendly ISPs available at [http://www.larrysworld.com/articles/lat\\_familyisp.htm](http://www.larrysworld.com/articles/lat_familyisp.htm))
- Foreign Languages – such as:
  - NetNam (Vietnamese) <http://home.netnam.vn/>
  - Nerim (French) <http://w.nerirn.ne!/>
  - Full list available at <http://thelist.internet.com/countrycode.html>
- Gamers (Games ISP <http://www.gamesisp.com/faq.html>)
- Telecommuters – such as:
  - Vista <http://www.vbbn.com/> -- “Vista is mainly targeting telecommuters, home offices and technically advanced families.” [http://www.isp-planet.com/fixed\\_wireless/business/2002/vista.html](http://www.isp-planet.com/fixed_wireless/business/2002/vista.html)
- Advanced Security
- Surfers (<http://www.asurfer.com/news.html>)

## **7. CONSUMER CHOICE: SOME KEY DIFFERENTIATORS**

Viewed **through** the eyes of the typical consumer, a rich array of choices exist the narrowband ISP space. Consumers now are free to ask **a** series of questions that enable them to differentiate one ISP from another. Some of those questions include:

**a. Rates**

- Is there a setup fee for the account?
- Does *the* ISP provide flat-rate accounts? How many hours per week or month are included?
- Does the ISP offer metered accounts?
- Does *the* ISP charge extra for usage during peak times?

**b. Phone Lines**

- Does the ISP provide dial-up numbers in the local area?
- Do the dial-up numbers in the local area support the modem speed?
- What is the ratio of subscribers to modems? How long does it take to connect during peak times of the day? If the lines become busy too often, **will** the ISP stop signing up new accounts until new modems are added to the **lines**?
- Does the ISP regularly update its equipment?
- **Are all** modems in the ISP's pool **56K**, or are some older modems still in service? Is the ISP V.90 standard? (an ITU modem standard for **56K** modems).
- Does the ISP provide an alternate line in the local area to **use** if there is a problem? *Are* there local dial-up numbers for other area codes? Does the ISP provide an 800 number to connect?

**e. Types of Services**

- Dynamic v. Static IP Addresses – How much more does a static IP address cost? Dynamic IP addresses are typically harder to use with a computer's Internet software. Static IP addresses are important for remote workers who need access through corporate firewalls and for subscribers registering their own domain names.
- Does the ISP provide domain name service? How much do they charge for this service?
- Does the ISP provide space for a Web page to users? **Is** there an added cost? How much storage space is provided? Does the ISP offer FTP services? (FTP allows one to update and maintain a website; can also be useful for uploading and downloading files that are too big for e-mail, such as digital photos.)

**d. Software**

- Does the ISP provide software **for** connecting? Is the software **an** additional cost?
- Does the **ISP** provide software for all types of computers and operating systems? **Is** the software easy to configure? Does the ISP provide service support for installing the software?
- Can the same software be used to **dial** into different ISPs? Does **the** ISP have proprietary **software** for Internet use? Does the ISP force the use of one browser, such **as** Internet Explorer?

- How difficult is it to obtain the software from the ISP? **Does** it mail it to **you** or do you have to download it?
- Can the software be used to provide or support Application Service Provider (ASP) services?

**e. Service**

- What **are** the ISP's technical support hours? Do they provide technical support during evenings and weekends? Does the ISP provide a toll-free technical support number? How difficult is it to *get* through to technical support? What **is** the average waiting time?
- Will the ISP give technical support via e-mail, or only via phone? How fast is the response time?
- How large is the ISP's technical support staff? Does the ISP provide online help pages? *Are* they helpful or too technical?

**f. Reliability and Quality**

- Does the ISP go down often? How long does it take to restore service?
- Does the ISP have a backup system that guarantees service? Will the ISP accept large mail messages or are messages truncated at a certain length?
- Does the ISP offer newsgroups?
- What is **the** ISP's connection to the Internet? Is there a lag when connecting?
- Does the ISP use multiple redundant connections to protect against connection failures? Does it channel all traffic through one pipe?

**g. Special Issues**

- Does the ISP provide filtering (child-proofing for unacceptable **sites**)?
- Does the **ISP** offer secure service for online transactions? What other **ecommerce** options are available?
- Does **the** ISP offer special services not available from other ISPs? *Are these* services optional **so** that they **are** not needlessly included in the rate agreement?
- Does the ISP provide personal information to mailing lists or commercial agencies?
- Does the provider offer **Web** e-mail?
- Does the ISP provide Service Level Agreements?
- What type of security does the ISP support for always-on (ISDN or DSL) connections?

The incredible diversity in service providers, and the numerous offerings of tailored content, applications, and services, gives the consumer **an** ability to create **a unique** interactive experience based solely on his or her personal choice.

D. Big Trouble in the Broadband World

Over the past few years, the BOCs have begun to deploy Digital Subscriber Line (DSL) capabilities in their local loop infrastructure. DSL originally was utilized by the ILECs in the late 1980s to provision copper loop-based “T-1” services to other carriers and large companies. With the emergence of competitive DSL carriers such as Covad, Northpoint, and Rhythms, and the advent of cable modem service provided by cable companies, however, the BOCs eventually realized that DSL could be used as a lower-cost broadband transmission technology for consumer and business use. Today, the BOCs and their fellow ILECs already have deployed ADSL-based Internet access service to over **70** percent of the public.

Broadband technology offers enormous potential to allow ISPs to speed the delivery of enhanced applications, content, and services to tens of millions of residential customers across the country. However, despite some claims to the contrary, the introduction of broadband technology into existing **ILEC** networks does not in any way entail the build-out of an entirely new network, or somehow alter the fundamental nature of the underlying telecommunications transport platform. In fact, dial-up (narrowband) Internet access and DSL-based (broadband) Internet access utilize the same local telephone facilities and infrastructure, and allow consumers to reach the **same** types of content and services from the Internet. The fact that affiliated and unaffiliated ISPs provide high-speed Internet access, utilizing underlying telecommunications services provided by the BOC, should not be surprising. This is precisely the case on *the* narrowband side, where **BOCs** provide the dial-up connections that ISPs combine with

information services and offer to consumers as Internet access. The very same analysis applies to Internet access provided over DSL transport lines. In both cases, the ILEC controls the “last mile” facilities needed to reach the end user.

Despite the pro-competitive provisions of the Telecommunications Act of 1996, the vast majority of DSL lines in this country **are** now provided by the Bell Operating Companies and other incumbent LECs. According to the FCC’s most recent Section 706 report, as of June 30, 2001, the ILECs controlled **93** percent of all ADSL lines, compared to only 7 percent for competitive **LECs**.<sup>19</sup> Moreover, CLECs actually lost DSL customers in the first half **of** 2001, while the ILECs’ DSL customer base continued to grow rapidly.” These figures are hardly surprising, given **the** fact that most of the ILECs’ erstwhile DSL-based CLEC rivals have been forced to leave the business or substantially reduce the scope of their networks.

Even more disturbing than the lack of competition for the wholesale DSL inputs, however, is the growing BOC dominance in the retail market **for** DSL-based Internet access. For example, SBC recently boasted that 80 percent of its total **DSL** lines are signed up to its own ISP.<sup>21</sup> Other industry sources put the BOCs’ share of the DSL-based Internet access market even higher.<sup>22</sup> In sharp contrast, the BOCs today have only a

<sup>19</sup> In re **Inquiry** Concerning the Deployment **of** Advanced Telecommunications Capability to All Americans in a Reasonable and Timely Fashion, and Possible Steps to Accelerate Such Deployment Pursuant to Section 706 of the Telecommunications Act of 1996, 17 F.C.C.R. 2844 (2002), at Table 5 (“**Third 706 Report**”). See also Jim Thompson, **Will ISPs Be Trampled in Dance of DSL Titans?**, **ISP Planet** (2000), available at <http://www.clec-planet.com/business/augisp.htm> (last viewed Feb. 28, 2002) (ILECs control 80 percent of the DSL market).

<sup>20</sup> **Section 706 Third Report** at para. 51 n.110.

<sup>21</sup> Eric Krapf, “The Coming DSL Debacle,” **Business Communications Review** (June 2001) at 6.

<sup>22</sup> Sue Ashdown, “Can America Compete with Bell Lobbying Armies,” **Internet Industry Magazine**, Fall 2001, at 74-75 (estimating the BOCs’ share of the DSL-based Internet access market as between 78 and 87 percent).

minimal percentage of narrowband ISP customers,<sup>23</sup> which can be attributable largely to the success of the FCC's Computer Inquiry policies in the dial-up access world. This striking disparity between the BOCs' small share of the dial-up ISP market, and their overwhelming share of the DSL-based broadband ISP market, clearly demonstrates that the BOCs retain monopoly control **over** bottleneck broadband transmission facilities, and have begun to leverage their control over those DSL-based inputs **as** a means of dominating the high-speed Internet access market.

This troubling situation has only been exacerbated by the fact that the FCC has failed to back **up** its own existing nondiscrimination policies with strong and effective enforcement. **As** a result, the BOCs have been free to commit numerous anticompetitive acts against independent ISPs, primarily by denying **ISPs** equal access to DSL networks.<sup>24</sup> Despite complaints filed by ISPs in various regulatory fora – including the FCC – it appears that very little has been done to date to enforce the Computer Inquiry rules in the DSL realm.<sup>25</sup>

Under these circumstances, it is not surprising that the BOCs have used their monopoly positions to quickly seize a disproportionate share of the retail ISP business

<sup>23</sup> Patricia Fusco, "Top **U.S** ISPs by Subscriber: Analysis of 2001 Year End Reports," ISP Planet, February 11, 2002; Patricia Fusco, "Top **U.S.** ISPs by Subscriber," ISP Planet, February 11, 2002.

<sup>24</sup> See, e.g., <http://www.cybertelecom.org/ci/enforcem.htm> (Site includes links to articles and filings related to the issue of ISP discrimination).

<sup>25</sup> See, e.g., Verified Complaint of the California ISP Association, Inc. Against Pacific Bell Telephone Co. (**U-1001-C**) and SBC Advanced Solutions, Inc. (**U-6346-C**) ( <http://www.cispa.org/244547.DOC>) (ISPs challenge **unlawful** DSL contract terms); FCC Complaint of Earthlink against SBC (Nov. 5, 2001), available at <http://www.brandx.net/fcc/earthlink-complaint/Part%201.pdf> (Earthlink challenges unlawful **DSL** tariff); Hearing before the Florida Public Service Commission at <http://www.floridapsc.com/psc/dockets/index.cfm?event=displayFile&Link=01895%2D01%2Epdf> (Independent **ISPs** allege ILEC discrimination); In the Matter of SBC Communications, Inc., Notice of Apparent Liability for Forfeiture. File No. EB-01-IH-0642, NAL/Acct. No. 200232080001 (Nov. 1, 2001), available at <http://hraunfoss.fcc.gov/edocs/public/attachmatch/DA-01-2549A1.doc>. [Enforcement Bureau investigates SBC discrimination against **unaffiliated** ISPs in provisioning and maintaining **DSL**; AISPA Letter to FCC Enforcement Bureau <http://www.aispa.org/1031/wrapper.jsp?PID=1031-10&CID=1031-110601B> (ISP alleges discrimination by Qwest Communications in providing **DSL** services).

that depends on DSL connections. Coupled with the fact that broadband ISP growth is roughly three times that of narrowband ISP growth,<sup>26</sup> the ILECs' market dominance raise serious concerns about the future of the independent ISP industry, and the Internet generally. It simply cannot be in the public interest for policymakers to stand by and do nothing while the ILECs, via their fully-integrated broadband ISPs, extend their local telephone monopolies to the very heart of the Internet.

At this critical juncture in the evolution of the Internet towards the use of broadband connections, the FCC's refusal to adequately enforce its own rules to protect consumers and ISPs alike from a burgeoning BOC monopoly certainly is deeply troubling. An even greater cause for alarm, however, is the FCC's new proposal to eliminate the very nondiscriminatory access policies that helped pave the way for the Internet in the first place.<sup>27</sup> The BroadNet Alliance believes that the right policy answer in the broadband DSL world is the same right answer that has been demonstrated so convincingly in the narrowband "dial-up" world: the FCC must retain and enforce the existing nondiscrimination requirements contained in its Computer Inquiry rules. Only when ISPs have equal access to DSL-based telecommunications connections will all U.S. consumers have a genuine choice for a diversity of broadband content, services, and applications.

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<sup>26</sup> Patricia Fusco, "Top U.S. ISPs by Subscriber," ISP Planet, November 2, 2001.

<sup>27</sup> In the Matter of Appropriate Framework for Broadband Access to the Internet over Wireline Facilities, CC Docket No. 02-33, Notice of Proposed Rulemaking, FCC 02-442, released February 15, 2002

**ORIGINAL****For Further Reading:****ARTICLES**

ISPs Diversify Services to Meet Demand (4/12/02)

<http://isp-planet.com/research/2002/evolution.html>

Independent ISPs are not going to sit back while larger rivals corner the market on new services, a report by INT Media Research **finds**. In the wild west of Wi-Fi and satellite services, the humble antenna is the competitive equalizer.

ISPs Are Nuts (And Bolts) Of Any Broadband Future (3/14/02)

<http://isp-planet.com/business/2002/bolts.html>

Internet service providers (ISPs) now **know** that corporate America hopes that broadband Internet services will bring the economy back to boom, but corporate plans ignore small ISP businesses, threatening the whole enterprise.

VoIP New Briefs

[http://isp-planet.com/technology/2002/voip\\_briefs\\_020610.html](http://isp-planet.com/technology/2002/voip_briefs_020610.html)

ISP competition is driving these types of advancements.

SBC Unfair on High-speed Net, ISPs charge

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**Staff** Writer, CNET News.com

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Local Baby Bells blamed for broadband blues

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<http://www.infoworld.com/articles/hn/xml/01/12/19/011219hnbabybells.xml>

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Competition provides choices that help ensure reliability.

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A quick list of some of the thousands of ISPs available to consumers can be found at <http://thelist.internet.com/index.html>

- <http://www.mbcnet.org/archives/etv/rihtml/videotext/videorext.htm>
- <http://www.isoc.org/internet/history/>
- <http://www.pbs.org/internet/timeline/index.html>
- [http://www.pbs.org/opb/nerds2.0.1/networking\\_nerds/atwork.html](http://www.pbs.org/opb/nerds2.0.1/networking_nerds/atwork.html)
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